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Docket No. 0575/63711-A/JPW/GJG/AX

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Aplicant : Virginia W. Cornish

Perial No. : 10/056,874

Filed : January 24, 2002

FOR : COVALENT CHEMICAL INDUCERS OF PROTEIN

DIMERIZATION AND THEIR USES IN HIGH

THROUGHPUT BINDING SCREENS

1185 Avenue of the Americas New York, New York 10036 May 3, 2002

Assistant Commissioner for Patents ... Washington, D.C. 20231

sir:

#### INFORMATION DISCLOSURE STATEMENT

in accordance with their duty of disclosure under 37 C.F.E. 51.56, applicant would like to direct the Examiner's attention to the following disclosures, which are listed on Form PTO-1449 Exhibit A). Copies of the disclosures listed below as items 1.39 are attached hereto as Exhibits 1-42, respectively:

U.S. Patent No. 5,928,868 (Liu et al.) issued July 27, 1999

(Exhibit 1);

U.S. Patent No. 5,736,343 (Landry) issued April 7, 1998 Exhibit 2);

M.S. Patent No. 5,468,614 (Fields et al.) issued Movember

21, 1995 Exhibit 31;

U.S. Serial No.: 10 056,874

Filed: January 24, 2002

- G.s. Patent No. 5,314,817 (Schultz, P.) issued May 24, 1994
  Exhibit 4);
  - U.S. Patent No. 5,194,594 (Kwawli et al.) issued March 16, 1993 (Exhibit 5);
- POT International Application Publication No. W0 01/53355

  (Cornish et al.) published July 26, 2001 (Exhibit 6);
- 7. FCT International Application Publication No. WO 99/10510 (Natesan et al.) published March 4, 1999 (Exhibit 7);
- FIT International Application Publication No. W0 99/10508
  (Matesan et al.) published March 4, 1999 (Exhibit 8);
- FOT International Application Publication No. WO 98/13353
  (Whitney et al.) published April 2, 1998 (Exhibit 9);
- 1). PCT International Application Publication No. WO 97/31113 (Rickles et al.) published August 28, 1997 (Exhibit 10);
- PCT International Application Publication No. WO 96/30540
  (Tsien et al.) published October 3, 1999 (Exhibit 11);
- European Patent Application Publication No. EP 0 742 015

  Kidow et al.), published November 13, 1996 (Exhibit 12);
- Austin DJ, et al. Proximity versus allostery: the role of regulated protein dimerization in biology. 1994. Chem Biol.

U.S. Serial No.: 10:056,874 Filed: January 24, 2002

Page 3

1 13 : 131-6 (Exhibit 13);

- Beishaw PJ, et al. Controlling protein association and subcellular localization with a synthetic ligand that induces heterodimerization of proteins. 1996. Proc. Natl Acad Sci USA 93(10):4604-7 (Exhibit 14);
- Belshaw PJ, et al. Controlling programmed cell death with a cyclophilin-cyclosporin-based chemical inducer of dimerization. 1996. Chem. Biol. 3:731-738 (Exhibit 15);
- 16. Choi J; et al. Structure of the FKBP-12-Rapamycin complex interacting with the binding domain of human FRAF. 1996. Science 273(5272):239-42 (Exhibit 16);
- DeGrado WF, et al. Screening, selection and design: standing at the crossroads in three dimensions. 1997.

  Current Opinion in Structural Biology 7:455-456 (Exhibit
- protain dimerizers that activate signal transduction and gene expression. 1997. J. Am. Chem. Soc. 119, 5106-5109

  Exhibit 18);
- From SN, et al. Dimeric ligands define a role for transcriptional activation domains in reinitiation, 1996.

  Nature, 382,6594':822-6 (Exhibit 19);

U.S. Serial No.: 10<sup>\*</sup>056,874 Filed: January 24, 2002

- Holsinger LJ, et al. Signal transduction in T lymphocytes using a conditional allele of Sos. 1995. Proc. Natl. Acad. Sci. USA 92:9810-9814 (Exhibit 20);
- Hung DT, et al. Understanding and controlling the cell cycle with natural products. 1996. Chem. Biol. 3:623-639 (Exhibit 21);
- 22. Klemm JD, et al. Dimerization as a regulatory mechanism in signal transduction. 1998. Annu. Rev. Immunol. 16:569-92 (Exhibit 22);
- 23. Liberles SD, et al. Inducibble gene expression and protein translocation using nontoxic ligands identified by a mammalian three-hybrid screen. 1997. Proc. Natl. Acad. Sci. USA 94(15):7825-7830 (Exhibit 23);
- 14. Licitra EJ, et al. A three-hybrid system for detecting small ligand protein receptor interactions. 1996. Proc. Natl. Acad. Sci. USA 93:12817-12821 (Exhibit 24);
- Pedersen H, et al. A method for directed evolution and functional cloning of enzymes. 1998. Proc. Natl. Acad. Sci. USA 95:10523-10528 (Exhibit 25);
- Fruschy MN, et al. Mechanistic studies of a signaling pathway activated by the organic dimerizer FK1012. 1994.

  Chem. Biol. 1:163-172 (Exhibit 26);

U.S. Serial No.: 10/056,874 Filed: January 24, 2002

- 27. Schreiber SL. Chemical genetics resuulting from a passion for synthetic organic chemistry. 1998. Bicorganic & Medicinal Chemistry 6:1127-1152 (Exhibit 27);
- Spencer DM , et al. Controlling signal transduction with synthetic ligands. 1993. Science 262(5136):1019-1024 (Exhibit 28);
- 29. Spencer DM, et al. Functional analysis of Fas signaling in vivo using synthetic inducers of dimerization. 1996. Curr Biol. 6(7):839-47 (Exhibit 29);
- 30. Spencer DM, et al. A general strategy for producing conditinal alleles of Src-like tyrosine kinases. 1995. Prog. Natl. Acad. Sci. 92:9805-9809 (Exhibit 30);
- 31. Stockwell BR, et al. TGF-beta-signaliung with small molecule FKBP12 antagonists that bind myristoylated FKBP12-TGF-beta type 1 receptor fusion proteins. 1998. Chem Biol. 5 (7:385-95 (Exhibit 31);
- Stockwell BR, et al. Probing the role of homomeric and heteromeric receptor interactions in TGF-beta signaling using small molecule dimerizers. 1998. Curr Biol 8(13):761-
  - Winkler T, et al. Confocal fluorescence coincidence analysis: An approach to ultra high-throughput screening. 1998: Proc. Natl. Acad. Sci. USA 96:1375=1378 (Exhibit 33);

U.S. Serial No.: 10/056,874

Filed: January 24, 2002

- Fig. Yang J, et al. Small-molecule control of insulin and PDGF receptor signaling and the role of membrane attachment.
  1997. Curr. Biol. 8:11-18 (Exhibit 34);
- 21. Zlokarnik G, et al. Quatitation of transscription and clonal selection of single living cells with beta-lactamase as reporter. 1998. Science 279(5347):84-8 (Exhibit 35);
  - 36. Search Report dated May 14, 2001 corresponding PCT International Application No. PCT/US01/02285 (Exhibit 36);
  - 37. Lin, H., et al. Dexamethasone-Methotrexate: An Efficient Chemical Inducer of Protein Dimerization In Vivo. 2000.

    J.Am.Chem.Soc. 122:4247-4248 (Exhibit 37);
- 38. Kopytek, S.J., et al. Chemically Induced Dimerization of Dihydrofolate Reductase by a Homobifunctional Dimer of Methotrexate. 2000. Chem Biol. 7:313-321 (Exhibit 38);
  - 39);
    39);
  - Firestine, S.M., et al. Using an AraC-Based three-hybrid system to detect biocatalysts in vivo. 2000. Nature Sietechnology. 13, 544-547 (Exhibit 40);
  - Felletier, J.N., et al. Oligomerization domain-directed reassembly of active dihydrofolate reductase from rationally designed fragments. 1998.

U.S. Serial No.: 10/056,874

Filed: January 24, 2002

Page ?

Proc. Natl. Acad. Sci. USA. 95, 12141-12146 (Exhibit 41); and

Ladart, D., Karimova, G. Genetic systems for analyzing protein-protein interactions in bacteria. 2000. Res. Microbiol. 151, 711-720 (Exhibit 42).

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone at the number provided below.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. If any such fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125:

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

John P. White// Reg. No. 28,878

Gary J. Gershik Reg.No. 39,992 Gary J. Gershik Registration No. 39,992 Attorney for Applicant

John P. White

Attorney for Applicant
Cooper & Dunham LLP

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INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Virginia W. Cornish Filing Date January 24, 2002 -

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### U.S. PATENT DOCUMENTS

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Ho SN, et al. Dimeric ligands define a role for transcriptional activation domains in reinitiation, 1996. Nature.

382(6594):822-6 (Exhibit 19)

Holsinger LJ, et al. Signal transduction in T lymphocytes using a conditional allele of Sos. 1995. Proc. Natl. Acad. Sci. USA

92:9810-9814 (Exhibit 20)

Hung DT, et al. Understanding and controlling the cell cycle with natural products. 1996. Chem. Biol.

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Page 4 of 8 4 Atty. Docket No. Serial No. 2.S. Department of Commerce Form PTO-1449 & PANDENS 63711-A JPW/GJG 10 056,874 Patent and Trademark Office Applicant INFORMATION DISCLOSURE STATEMENT Virginia W. Cornish (Use several sheets if necessary) Filing Date. Group January 24, 2002 1614 U.S. PATENT DOCUMENTS Date Name Class Subclass Filing Date Document Number Examiner if Appropriate Initial FOREIGN PATENT DOCUMENTS **Translation** Country Class Subclass Date Document Number Yes: No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Klemm JD, et al. Dimerization as a regulatory mechanism in signal transduction. 1998. Annu. Rev. Immunol. 16:569-92 (Exhibit 22) Liberles SD, et al. Inducible gene expression and protein translocation using nontoxic ligands identified by a mammalian three-hybrid screen. 1997. Proc. Natl. Acad. Sci. USA 94(15):7825-7830 (Exhibit 23) Licitra E.J. et al. A three-hybrid system for detecting small ligand-protein receptor interactions. 1996, Proc. Natl. Acad. Sci. USA 98(12817-12821 (Exhibit 24)

EXAMINER: Initial if reference considered, whether or not citation is in any crimance with MPEP 609: Draw line through citation if not in any crimance and not considered. Include copy of this from with next communication to applicant.

DATE CONSIDERED

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Page 5 of 8 Atty. Docket No. Serial No. S. Department of Commerce Form PTO-1449 63711-A JPW/GJG 10.056.874 Patent and Trademark Office Applicant Virginia W. Comish INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) Filing Date Group January 24, 2002 1614 U.S. PATENT DOCUMENTS Date Name Class Subclass Filing Date Document Number Examiner if Appropriate Initial FOREIGN PATENT DOCUMENTS Class Subclass **Translation** Date Country Document Number Yes No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Pedersen H, et al. A method for directed evolution and functional cloning of enzymes. 1998. Proc. Natl. Acad. Sci. USA 95:10523-10528 (Exhibit 25) Pruschy MN, et al. Mechanistic studies of a signaling pathway activated by the organic dimerizer FK1012, 1994, Chem. Biol. 1:163-172 (Exhibit 26) Schreiber SL. Chemical genetics resulting from a passion for synthetic organic chemistry. 1998. Bioorganic & Medicinal Chemistry 

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Page 6 of 8 MAY U 7 2011 Serial No. US: Department of Commerce Atty. Docket No. Form PTO-1449 MOEMARY Patent and Trademark Office 10:056.874 63711-A JPW/GJG Applicant INFORMATION DISCLOSURE STATEMENT Virginia W. Comish Group. (Use several sheets if necessary) Filing Date 1614 January 24, 2002 U.S. PATENT DOCUMENTS Filing Date Class Subclass Document Number Name Examiner if Appropriate Initial FOREIGN PATENT DOCUMENTS Date Country Class Subclass Translation Document Number Yes No OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Spencer DM, et al. Controlling signal transduction with synthetic ligands, 1993. Science 262(5136):1019-1024 (Exhibit 28) Spencer DM, et al. Functional analysis of Fas signaling in vivo using synthetic inducers of dimerization, 1996, Curr Biol. 6(7):839-47 (Exhibit **29**) Spencer DM, et al. A general strategy for producing conditional alleles of Src-like tyrosine kinases, 1995, Proc. Natl. Acad. Sci.

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Docket No. 0575/63711-A/JPW/GJG/ANX

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant

Virginia W. Cornish

Serial No.

10/056,874

Filed

January 24, 2002

**TECH CENTER 1600/2900** 

AUG 2,3 2002

For

Covalent Chemical Inducers of Protein Dimerization And Their Uses in High

Throughput Binding Screens

1185 Avenue of the Americas New York, New York 10036 August 13, 2002

Assistant Commissioner for Patents Washington, D.C. 20231

RECEIVED

SIR:

AUG 2 2 2002

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT NO Center 2600

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicant direct the Examiner's attention to document listed below and on Form PTO-1449 attached hereto as Exhibit A. Copies of references 1-4 are attached hereto as Exhibits 1-4.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b)(3) before the mailing of a first Office Action on the merits. Thus, this Information Disclosure Statement should be entered and considered.

Thus, applicant request that this Information Disclosure Statement be considered.

U.S. Patent No. 6,200,759, issued March 13, 2001 to Dove, S., et al. (Exhibit 1);

Virginia W. Cornish Serial No.: 09/768,479 Filed: January 24, 2001 Page: 2

- 2. U.S. Patent No. 5,925,523, issued July 20, 1999 to Dove, S. et al. (Exhibit 2);
- U.S. Serial No. 10/084,388, filed February 25, 2002 (Exhibit 3).; and
- U.S. Serial No. 10/132,039, filed April 24, 2002 (Exhibit 4).

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorney invites the Examiner to telephone at the number provided below.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted

this hereby certify that correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Reg. No. 28,678 Gary J. Gershik Req. No. 39, 992 John P./White

Registration No. 28,678

Gary J. Gershik

∴Registration: No:: No:=39,992 A. A. Chin

Attorney for Applicant Cooper & Dunham LLP

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New York, New York 10036

(212) 278-0400

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Docket No. 63711-A/JPW/GJG/DNS

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Virginia W. Cornish

Serial No. : 10/056,874

Filed: January 24, 2002

For : COVALENT CHEMICAL INDUCERS OF PROTEIN

DIMERIZATION AND THEIR USES IN HIGH

THROUGHPUT BINDING SCREENS

1185 Avenue of the Americas New York, New York 10036 April 18, 2006

- TWOOCHEL

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir

#### FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. \$1.56, applicant directs the Examiner's attention to the references which are listed on the attached Form PTO-1449 (Exhibit A) and are also listed below.

the full official

Applicant filed an Information Disclosure Statement including a Form PTO-1449 on May 3, 2002 and a Supplemental Information Disclosure Statement on November 2, 2004. These Information Disclosure Statements disclosed, among other items, U.S. Serial No. 09/768,479, filed January 24, 2001; U.S. Serial No. 10/084,388, filed January 25, 2002; and U.S. Serial No. 10/132,039, filed April 24, 2002, (collectively, the "Disclosed Applications"). Since the filing of these Information Disclosure Statements, the Disclosed Applications have published as U.S.

Applicant : Virginia Cornish

Serial No.: 10/705,644 Filed: November 10, 2003

Page 2

Patent Application Publications. Accordingly, applicant submits this Fifth Supplemental Information Disclosure Statement to have the published Disclosed Applications made of record in the subject application.

This Fifth Supplemental Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b)(3) before the mailing of a first Office Action on the merits. Thus, this Fifth Supplemental Information Disclosure Statement should be entered and considered.

- U.S. Patent Application Publication No. 2002-0004202 A1, published January 10, 2002, corresponding to Virginia Cornish, U.S. Serial No. 09/768,479, filed January 24, 2001;
- 2. U.S. Patent Application Publication No. 2003-0138785 A1, published July 24, 2003, corresponding to Stephen Kopytek et al., U.S. Serial No. 10/084,388, filed February 25, 2002; and
- 3. U.S. Patent Application Publication No. 2003-0203471 A1, published October 30, 2003, corresponding to Eric A. Althoff et al., U.S. Serial No. 10/132,039, filed April 24, 2002.

Applicant requests that the Examiner review the references and make them of record in the subject application.

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Applicant : Virginia Cornish

Serial No.: 10/705,644 Filed: November 10, 2003

Page 3

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorneys invites the Examiner to telephone them at the number provided below.

No fee is deemed necessary in connection with the filing of this Fifth Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1459

Jan & Seule 4/8/06

Reg. No. /28,678 Gary J. Gershik Reg. No. 39,992 John P/ White

Registration No. 28,678

Gary J. Gershik

Registration No. 39,992

Attorneys for Applicant

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APR 2 4 2005

Page 1 of 1 U.S. Department of Commerce Atty. Docket No. Serial No. 63711-A/JPW/GJG/DNS 10/056,874 Patent and Trademark Office Applicant: Virginia W. Cornish INFORMATION DISCLOSURE CITATION Filing Date Group (Use several sheets if necessary) January 24, 2002 **U.S. PATENT DOCUMENTS** Date Examiner Document Number Class Subclass Filing Date Initial if Appropriate FOREIGN PAPENT DOCUMENTS Translation **Document Number** Country Class Subclass Yes OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) U.S. Patent Application Publication No. 2002-0004202 A1, published January 10, 2002, corresponding to Virginia Cornish, U.S. Serial No. 09/768,479, filed January 24, 2001 U.S. Patent Application Publication No. 2003-0138785 A1, published July 24, 2003 corresponding to Stephen Kopytek et al., U.S. Serial No. 10/084,388, filed February 25, 2002 U.S. Patent Application Publication No. 2003-0203471 A1, published October 30, 2003. corresponding to Eric A. Althoff et al., U.S. Serial No. 10/132,039, filed April 24, 2002 **EXAMINER** DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

MAY 2 3 2005

Docket No. 63711-A/JPW/GJG/DNS

### N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Wirginia W. Cornish

Serial No. : 10/056,874

Filed: January 24, 2002

For : COVALENT CHEMICAL INDUCERS OF PROTEIN

DIMERIZATION AND THEIR USES IN HIGH

THROUGHPUT BINDING SCREENS

1185 Avenue of the Americas New York, New York 10036 May 19, 2005

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicant directs the Examiner's attention to the references which are listed on the attached Form PTO-1449 (Exhibit A) and are also listed below.

Items 1-3 below were cited in a Supplementary Partial European Search Report issued on April 19, 2005 in connection with the related European Application No. 01942644.4. A copy of the search report is enclosed as **Exhibit B**.

This Fourth Supplemental Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b)(3) before the mailing of a first Office Action on the merits. Thus, this

Applicant : Virginia W. Cornish

Serial No.: 10/056,874 Filed: January 24, 2002

Page 2

Fourth Supplemental Information Disclosure Statement should be entered and considered.

- 1. Cornish, Virginia W. et al., "Dexamethasone-Methotrexate:

  An Efficient Chemical Inducer Of Protein Dimerization In

  Vivo," Abstracts of Papers American Chemical Society, Vol.

  219, No. 1-2, page BIOL 124 (2000) (Exhibit 1);
- Cornish, Virginia W. et al., "Synthesis of Dexamethasone-Methotrexate CIDS With Variable Linkers," Book of Abstracts, American Chemical Society, 219<sup>th</sup> ACS National Meeting, San Francisco, CA, page CHED 401 (March 26-30, 2000) (Exhibit 2); and
- 3. Griffith, E.C. et al. "Yeast Three-Hybrid System for Detecting Ligand-Receptor Interactions," Methods in Enzymology, Vol. 328, pp. 89-103 (2000) (Exhibit 3).

Applicant requests that the Examiner review the references and make them of record in the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorneys invites the Examiner to telephone them at the number provided below.

No fee is deemed necessary in connection with the filing of this Fourth Supplemental Information Disclosure Statement. However,

or with the decidention.

Applicant : Virginia W. Cornish

Serial No.: 10/056,874 Filed: January 24, 2002

Page 3

if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

John P. White Reg. No. 28,678 Gary J. Gershik Reg. No. 39,992 John P. White

Registration No. 28,678

Gary J. Gershik

Registration No. 39,992 Attorneys for Applicant

Cooper & Dunham LLP

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John W. Livery

278-0400



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Applicants: Virginia W. Cornish Serial No.: 10/056,874 Filed: January 24, 2002 Exhibit A

Applicant :

Virginia Cornish

Serial No.:

10/056,874

Filed: Page 5

January 24, 2002

### THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and pursuant to 37 C.F.R. §1.97(b)(3), applicant directs the Examiner's attention to the following documents which are listed on the attached Form PTO-1449 (Exhibit A). Copies of the documents listed below as items 1-5 are attached hereto as Exhibits 1-5, respectively:

- PCT International Application No. WO 2003/060073 A3, published November 6, 2003 (Exhibit 1);
- 2. PCT International Application No. WO 2004/042345 A3, published September 23, 2004 (Exhibit 2);
- 3. PCT International Search Report dated October 18, 2002, corresponding to PCT International Application No. PCT/US02/02199 (Exhibit 3);
- 4. Written Opinion dated March 20, 2003, corresponding to PCT International Application No. PCT US02/02199 (Exhibit 4); and
- 5. Pollock et al., (2002) "Dimerizer-regulated gene expression"

  Current Opinion in Biotechnology 13:459-467 (Exhibit 5).

Applicant requests that the Examiner review the references and make them of record in the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorneys invites the Examiner to telephone them at the number

Applicant :

Virginia Cornish

Serial No.:

10/056,874

Filed:

January 24, 2002

Page 6

provided below.

No fee is deemed necessary in connection with the filing of this Response and Third Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

that hereby correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

John P. Reg. No. 28,678

Gary J. Gershik

Reg. No. 39,992

John P. White

Registration No. 28,678

Gary J. Gershik

Registration No. 39,992

Attorneys for Applicant

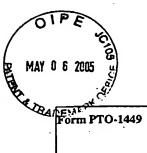
Cooper & Dunham LLP.

1185 Avenue of the Americas

New York, New York 10036

(212) 278-0400

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Page 1 of 1 Serial No. **U.S. Department of Commerce** Atty. Docket 63711-A/JPW/GJG/DNS 10/056,874 Patent and Trademark Office Applicants: Virginia Cornish INFORMATION DISCLOSURE CITATION Filing Date (Use several sheets if necessary) January 24, 2002 **U.S. PATENT DOCUMENTS** Document Number Filing Date Class Subclass Date Name Examiner if Appropriate Initial FOREIGN PATENT DOCUMENTS Translation Subclass Class Document Number Date Country Yes PCT; WO 20 03 06 0 11/6/03 9/23/04 PCT: WO 20 04 04 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) PCT International Search Report dated October 18, 2002, corresponding to PCT International Application No. PCT/US02/02199; Written Opinion dated March 20, 2003, corresponding to PCT International Application No. PCT US02/02199 Pollock et al., (2002) "Dimerizer-regulated gene expression" Current Opinion in Biotechnology 13:459-467. DATE CONSIDERED **EXAMINER** 

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in

conformance and not considered. Include copy of this form with next communication to applicant.

Applicants: Virginia Cornish Serial No.: 10/056,874 Filed: January 24, 2002 Exhibit A Property and Control



Docket No. 63711-A/JPW/GJG/DNS

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Virginia Cornish

Serial No. : 10/056,874

Filed: January 24, 2002

For : COVALENT CHEMICAL INDUCERS OF PROTEIN

DIMERIZATION AND THEIR USES IN HIGH

THROUGHPUT BINDING SCREENS

1185 Avenue of the Americas New York, New York 10036 November 2, 2004

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

This Second Supplemental Information Disclosure Statement is submitted under 37 C.F.R. §1.97(c). Accordingly, the undersigned hereby certifies pursuant to 37 C.F.R. §1.97(e)(1) that each item of information contained in this Supplemental Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Supplemental Information Disclosure Statement.

In accordance with their duty of disclosure under 37 C.F.R.

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Applicants: Virginia Cornish

Serial No.: 10/056,874 Filed: January 24, 2002

Page 2

§1.56, applicants would like to direct the Examiner's attention to the following documents which are listed on Form PTO-1449 (Exhibit A) and are also listed below:

- U.S. Patent No. 6,030,785, issued February 29, 2004, Katze et al. (Exhibit 1);
- 2. Dove et al., (1997) "Activation of Prokaryotic Transcription Through Arbitrary Protein-Protein Contacts" Nature 386:627-630 (Exhibit 2); and
- 3. Filman et al., (1982) "Crystal Structures of Escherichia coli and Lactobacillus casei Dihydrofolate Reductase Refined at 1.7 Å Resolution", The Journal of biological Chemistry 257(22): 13663-13672 (Exhibit 3).

Applicants request that the Examiner review the references and make them of record in the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

Applicants: Virginia Cornish

Serial No.: 10/056,874 Filed: January 24, 2002

Page 3

No fee is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

that this hereby certify correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

John P. White Reg. No. 28,678

Gary J. Gershik

Reg. No. 39,992

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Gary J. Gershik

Registration No. 39,992

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iosis Stationenn - Nowe



Page 1 of 1 Serial No. Form PTO-1449 **U.S.** Department of Commerce Atty. Docket No. Patent and Trademark Office 63711-A/JPW/GJG/DNS 10/056,874 Applicants: Virginia Cornish INFORMATION DISCLOSURE CITATION Filing Date (Use several sheets if necessary) January 24, 2002 **U.S. PATENT DOCUMENTS** Document Number Date Class Subclass Filing Date Examiner Name if Appropriate 2/29/04 Katze; et al. FOREIGN PATENT DOCUMENTS Translation Document Number Date Country Class Subclass Yes OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Dove et al., (1997) "Activation of Prokaryotic Transcription Through Arbitrary Protein-Protein Contacts" Nature 386:627-630; and Filman et al., (1982) "Crystal Structures of Escherichia coli and Lactobacillus casei Dihydrofolate Reductase Refined at 1.7 Å Resolution", The Journal of biological Chemistry 257(22): 13663-13672. **EXAMINER** DATE CONSIDERED EXAMINER: Initiar if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: Virginia Cornish
Title: COVALENT CHEMICAL INDUCERS OF
PROTEIN DIMERIZATION AND THEIR USES
IN HIGH THROUGHPUT BINDING SCREENS
U.S. Serial No. 10/056,874
Filed: January 24, 2002
Exhibit A

1.39 04150



#### Docket No. 0575/63711-A/JPW/GJG/ACK

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Virginia W. Cornish

Serial No. : 10/056,874

Filed: January 24, 2002

For : COVALENT CHEMICAL INDUCERS OF PROTEIN

DIMERIZATION AND THEIR USES IN HIGH

THROUGHPUT BINDING SCREENS

1185 Avenue of the Americas New York, New York 10036 October 8, 2003

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants would like to direct the Examiner's attention to the following documents listed below and also listed on Form PTO-1449 (Exhibit A). A copy of the documents listed below as items 1 and 2 is attached hereto as Exhibit 1 and Exhibit 2.

This Supplemental Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b)(3) before the mailing of a first Office Action on the merits. Thus, this Supplemental Information Disclosure Statement should be entered and considered.

- Amara, J. F. et al.: A versatile synthetic dimerizer for the regulation of protein-protein interactions, *Proc. Natl.* Acad. Sci. USA, Vol. 94, 1997, pages 10618-10623 (Exhibit 1);
- PCT International Search Report dated July 17, 2003 corresponding to PCT International Application No.

- Williaktion I - white attacher

Applicants Virginia W. Cornish

Serial No. 10/056,874

January 24, 2002 Filed

Page 2

PCT/US02/40943 (Exhibit 2).

Applicants request that the Examiner review the references and make it of record in the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

John P. Reg. No White 28,678

Gary J. Gershik

John P. White

Registration No. 28,678

Gary J. Gershik

Registration No. 39,992

Attorneys for Applicants

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1185 Avenue of the Americas

New York, New York 10036

(212) 278-0400

Sheet 1 of 1 Serial No. Atty. Docket No. U.S. Department of Commerce 10/056,874 63711-A/ Patent and Trademark Office JPW/GJG/ACK Applicant INFORMATION DISCLOSURE CITATION Virginia W. Cornish (Use several sheets if necessary) Group Filing Date January 24, 2002 1614 U.S. PATENT DOCUMENTS Document Number Class · Subclass. Filing Date Examiner Date Name Initial if Appropriate FOREIGN PATENT DOCUMENTS **Document Number** Date **Country** Subclass Translation Class Yes No 2000 1 10 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Amara, J.F. et al. A Versatile Synthetic Dimerizer for the Regulation of Protein-Protein Interactions, Proc. Natl. Acad. Sci. USA, 1997, <u>94</u>, 10618-10623 (Exhibit 1)

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

**EXAMINER** 

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CONT. 107 18, 10623 (FS16).

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